

REMARKS

Claims 1-60 are pending, with claims 1, 19, 24, 29, 32, 52, and 55 being independent. Claims 1-18, 26, 32-51, and 55-60 have been withdrawn from consideration. Claims 19, 24-25, and 27-30 have been amended by this reply. Applicants note that claim 19 has been amended to further clarify the claimed elements therein, and not for reasons related to patentability. In view of the foregoing amendments and the following remarks, reconsideration and allowance of this application are respectfully requested.

Applicants acknowledge with appreciation the Examiner's indication that claims 24 and 29 are directed to allowable subject matter.

Objection to Title

An objection was made to the title as not being descriptive. In response, the title has been amended. Therefore, it is respectfully requested that the objection be withdrawn.

35 U.S.C. § 112/1 Rejection

Claims 25, 27-28, and 30 were rejected under 35 U.S.C. § 112, first paragraph as a result of the specification allegedly being non-enabling. This rejection is respectfully traversed.

Claim 25 was rejected as not having "support for the limitation of 'a cut off frequency of the filter is set between approximately 1 hertz and approximately 0.001 hertz.'" This rejection is respectfully traversed. At least one instance of support is found in the application at page 3, lines 17-18, which describes a high pass filter network "where the cutoff frequency of the high pass filter network may be set between approximately 1 to 0.001 hertz." Therefore, it is respectfully requested that the rejection be withdrawn.

Claim 27 was rejected as not having support for the "limitation of 'a second terminal connected to the ground.'" This rejection has been rendered moot by the amendment to claim 27. The claim has been amended to recite "a second input terminal connected through a capacitor to the ground." At least one instance of support for the amendment is found in Fig. 5, which shows

a capacitor 560 connected between the second input terminal 564 and ground. Therefore, it is respectfully requested that the rejection be withdrawn.

Claims 28 and 30 were rejected as not having support for the "limitation of 'a surge protective device connected between the current transformer and ground.'" This rejection is respectfully traversed. At least one instance of support is found in the application at page 4, lines 12-14, which explains that "a surge suppressor may be connected between the transformer secondary winding and ground." Therefore, it is respectfully requested that the rejection be withdrawn.

35 U.S.C. § 112/2 Rejection

Claims 25, 27-28, 30 and 52-54 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite. This rejection is respectfully traversed.

Claim 25 was rejected as being indefinite "since the range for the cut off frequency is unclear and improperly claimed." This rejection has been rendered moot by the amendment to claim 25. The claim has been amended to recite the range "between 1 hertz and 0.001 hertz." Therefore, it is respectfully requested that the rejection be withdrawn.

Claim 27 was rejected as being indefinite because "it appears that the limitation of 'a second input terminal connected to the ground' is inaccurate because this second terminal is not directly connected to a ground." This rejection has been rendered moot by the amendment to claim 27. The claim has been amended to recite "a second input terminal connected through a capacitor to the ground." Therefore, it is respectfully requested that the rejection be withdrawn.

Claims 28 and 30 were rejected as being indefinite because "it appears that the limitation of the surge protection device (555) is not accurate because it is not connected between the current transformer and ground." This rejection has been rendered moot by the amendment to claims 28 and 30. Claims 28 and 30 have been amended to recite "a surge protection device connected between a terminal of the current transformer and ground." As shown at least in Fig. 5, the surge protection device 555 is connected between a terminal 517 of the current transformer 505 and ground. Therefore, it is respectfully requested that the rejection be withdrawn.

Claims 52-54 were rejected as being indefinite because "it is unclear whether the voltage measuring means and the current measuring means are the current transformer" and "it is unclear what 'means for measuring voltage in the primary high voltage conductor using the current transformer' and 'means for measuring current in the high voltage conductor using the current transformer' represent." This rejection is respectfully traversed. As described at least at page 7, lines 8-17 and shown in Fig. 5, the voltage measuring circuit 510 is one example of a voltage measuring means using the current transformer. As described at least at page 7, lines 18-23 and shown in Fig. 5, the current measuring circuit 515 is one example of a current measuring means using the current transformer. Moreover, because the means clauses recite "using the current transformer" it is clear that they differ from the current transformer. Therefore, it is respectfully requested that the rejection be withdrawn.

35 U.S.C. § 103(a) Wilkerson/ Estes, Jr. Rejection

Claims 19-23, 31, and 52-54 were rejected under 35 U.S.C. § 103(a) as being obvious over Wilkerson (U.S. Patent No. 4,914,383) in view of Estes (U.S. Patent No. 5,293,121). This rejection is respectfully traversed.

Independent claim 19 is directed to an apparatus for simultaneously measuring voltage and current in a primary high voltage conductor and recites, among other elements, "a voltage measurement circuit connected to the current transformer, the voltage measurement circuit being configured to measure voltage in the primary high voltage conductor." Applicants respectfully submit that neither Wilkerson, Estes, nor any combination of the two, describes or suggests at least this element of claim 19.

Wilkerson describes a non-contact ammeter for measuring direct current in a conductor. See Wilkerson at col. 1, ll. 7-10; col. 4, ll. 25-28; col. 5, ll. 22-26; abstract. The voltage in the conductor is not measured by the ammeter of Wilkerson. As such, Wilkerson does not describe or suggest a voltage measurement circuit connected to the current transformer and configured to measure voltage in the primary high voltage conductor, directly or indirectly.

Estes does not remedy any of the deficiencies of Wilkerson with respect to claim 19 because Estes does not describe or suggest a voltage measurement circuit connected to the current transformer and configured to measure voltage in the primary high voltage conductor. Instead, Estes describes a method and circuit for measuring direct current and high duty factor current in a conductor. See Estes at col. 2, ll. 23-36; abstract. The voltage in the conductor is not measured by the method or circuit of Estes.

Claims 20-23 and 31 depend from claim 19 and are believed to be allowable for at least the reasons given for claim 19.

Independent claim 52 is directed to an apparatus for simultaneously measuring voltage and current in a primary high voltage conductor and, similarly to claim 19, recites, among other elements, a "means for measuring voltage in the primary high voltage conductor using the current transformer." As discussed above with respect to claim 19, the combination of Wilkerson and Estes fails to describe or suggest at least this feature of claim 52.

Claims 53 and 54 depend from claim 52 and are believed to be allowable for at least the reasons given for claim 52.

It is respectfully submitted that Wilkerson and Estes either alone or in combination, do not establish a *prima facie* case of obviousness with regard to claims 19-23, 31, and 52-54. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Claim Objection

An objection was made to allowable claims 24 and 29 as being dependent upon a rejected base claim. This objection has been rendered moot by the amendment to claims 24 and 29, which have been re-written in independent form.

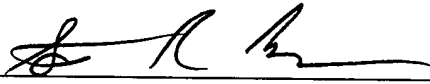
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Respectfully submitted,

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